Competitive Carriers Association
Rural • Regional • Nationwide®

July 27, 2017

BY ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: NOTICE OF EX PARTE
WT Docket No. 10-208: *Universal Service Reform - Mobility Fund*
WC Docket No. 10-90: *Connect America Fund*

Dear Ms. Dortch:

On July 26 and July 27, 2017, certain members of Competitive Carriers Association ("CCA"),[1] and Nex-Tech Wireless (via phone), met with staff from the office of the Federal Communications Commission's ("FCC" or "Commission") Chairman Ajit Pai; office of Commissioner Mignon Clyburn; office of Commissioner Michael O'Rielly; the Rural Broadband Auctions Task Force; the Wireless Telecommunications Bureau; and the Wireline Competition Bureau, to discuss the above-referenced proceedings. A full list of meeting participants is below. With the Mobility Fund Phase II ("MF II") item on the Commission's August Open Meeting agenda, CCA reiterates its support to reform the Mobility Fund II program, encourages the FCC to improve its data collection parameters to help standardize the data that is used to create an eligibility map, and urges the Commission to ensure a more detailed and less burdensome challenge process the provides challengers sufficient time to collect the information needed to perfect the map.

Data Collection Process

CCA agrees with the statutory objective, and the foundation for Chairman Pai's Digital Empowerment Agenda, that rural Americans deserve the same digital access as those living in more urban areas. To that end, CCA applauds the Commission for releasing a draft *Order on Reconsideration and Second Report and Order* that determines how the FCC will define areas eligible for MF II support.[2] In addition, CCA has been pleased at the Commission's willingness to base its decision on

[1] CCA is the nation's leading association for competitive wireless providers and stakeholders across the United States. CCA's membership includes nearly 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA also represents nearly 150 associate members consisting of businesses, vendors, and suppliers that serve carriers of all sizes.

[2] *Connect America Fund, Universal Service Reform – Mobility Fund*, Fact Sheet, Draft Order on Reconsideration and Second Report and Order, WC Docket Nos. 10-90 & 10-208 (rel. July 13, 2017) ("Draft Order").

engineering and technical data rather than anecdotal evidence. Before adopting a final Order, however, the FCC must continue to work on standardizing inconsistent underlying data to present on-the-ground broadband coverage that reflects consumers' actual mobile experiences. And with the Commission's reliance on the challenge process to perfect the eligible areas map, the Commission must ensure challengers have a sufficient amount of time to test an unsubsidized provider's claimed coverage.

Acknowledging that Form 477 data is insufficient, the draft Order adopts a new, one-time collection of 4G LTE coverage data to establish a map of areas potentially eligible for MF II support.[3] While CCA applauds the FCC for adding factors to help determine what level of services consumers are receiving as opposed to advertised coverage, these limited factors are not enough to standardize and disclose how coverage is measured and to ensure an accurate picture of on-the-ground coverage in rural areas.[4] First, cell edge probability should be delineated at 90% probability of download speed of 5 Mbps under with a cell loading factor of 50%.[5] While the draft item notes that a download speed of 5 Mbps with 70% cell edge probability, and a 30% cell loading factor, strikes a "reasonable balance between expanding LTE into unserved areas and enhancing existing suboptimal LTE service areas, which promotes the optimal use of limited public funds," this is not the case in rural areas.[6] Specifically, the 70% cell edge probability and 30% cell loading metrics as put forth by the Commission appear to overstate actual coverage by as much as 45%. In contrast, networks in rural areas are designed to ensure consumers are afforded ubiquitous coverage at broadband speeds right through to the cell edge. In addition, signal drop is dramatic in rural areas outside the cell edge. This is remarkably different from an urban network, that has a more gradual signal drop because carriers are able to use small cells or other technologies to pick-up or improve a signal and have greater numbers of cell base stations to pick up the customer as they leave the cell edge. As such, CCA continues to emphasize that a map defined by 90% cell edge probability and 50% cell loading factor will prevent against an overstatement of network coverage and help to ensure certain rural communities are provided adequate mobile broadband service. Finally, there is ample record support to adopt the 90% cell edge probability and 50% cell loading factor combination, including CTIA's Joint Proposal among the largest carriers.[7] Whereas, the 70% cell edge probability has no support in the record. Therefore, the FCC should adopt a 90% cell edge probability factor with 50% cell loading at 5 Mbps, which is a more accurate representation of actual coverage and will lessen the burden of the challenge process both on the FCC and entities engaging in the challenge process.

Additionally, to be effective, propagation maps and the corresponding data submitted through the one-time data collection must include specific conditions, including signal strength and

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[3] *Id.* ¶ 28

[4] Comments of Competitive Carriers Association, WC Docket Nos. 10-90 & 10-208 at 11-12 (filed Apr. 26, 2017) ("CCA MF II Comments"); Reply Comments of Competitive Carriers Association, WC Docket Nos. 10-90 & 10-208 at 4-5 (filed May 11, 2017) ("CCA MF II Reply Comments").

[5] *See id.*; Comments of CTIA, WC Docket Nos. 10-90 & 10-208 at 11-12 (filed Apr. 26, 2017) ("CTIA MF II Comments").

[6] Draft Order ¶¶ 28, 24.

[7] *See, e.g.*, CTIA MF II Comments.

resolution requirements.[8] As CCA has previously advocated, the Reference Signal Received Power ("RSRP") level should be clearly defined. While a standardized RSRP should be required, in the alternative, a carrier's RSRP should at least be disclosed in the final Order.[9] As current FCC filings show, network coverage can be subjective and vary by equipment vendor and network design. Including RSRP will help to provide coverage determinations that reflect actual consumer experience, and that mapping will be conducted consistently across the country.

Likewise, map files must be produced using determined clutter factors, including clear indications of the precise loss values assigned to the clutter type, or in the alternative, disclose the clutter factors used in compiling the data.[10] Like RSRP levels, providers can employ a variety of techniques and clutter factors, which threaten to dilute coverage for comparison purposes.[11] Incorporating the above factors will help participating carriers submit accurately standardized data and will provide the Commission with a more robust coverage analysis across the United States. Most importantly, inclusion of these factors will ultimately ensure that support is provided in areas where economics compel it to prevent loss of existing coverage to consumers, farmers, doctors, nurses, teachers, and first responders. As CCA has continuously advocated, and as Congress has directed, the FCC must base its funding decisions on accurate service data[12] to prevent widening the digital divide.

Challenge Process

In addition to the one-time data collection, the draft Order establishes a challenge process for carriers or government entities to challenge the initial eligible area map before final eligible areas are determined. Specifically, the draft item instructs filers to use optimized radiofrequency propagation models and parameters from their "normal course of business."[13] Challenged providers also must submit a list of at least three readily-available handsets that challengers can use to conduct speed tests, as well as a certification, under penalty of perjury, by a qualified engineer that the propagation map reflects the filer's coverage as of the generation date of the map in accordance with

[8] CCA MF II Comments at 11-13; CCA MF II Reply Comments at 4-5.

[9] *Id.*

[10] *Id.*

[11] *Id.*

[12] *See* Letter from Sens. Wicker (R-MS), Manchin (D-WV), Baldwin (D-WY), Blunt (R-MO), Burr (R-NC), Capito (R-WV) Daines (R-MT), Ernst (R-IA), Fischer (R-NE), Gardner (R-CO), Heitkamp (D-ND), Johnson (R-WI), King (I-ME), Klobuchar, (D-MN), McCaskill (D-MO), Moran (R-KS), Peters (D-MI), Roberts (R-KS), Rubio (R-FL), Tillis (R-FL), Vitter (R-LA), Warner (D-VA), Wyden (D-OR), Cochran (R-MS), Boozman (R-AR), Kirk (R-IL), U.S. Senate, to The Hon. Tom Wheeler, Chairman, Federal Communications Commission (July 11, 2016), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-341429A2.pdf (Noting that "[i]mportantly, the FCC must rely on realistic measurements of network experience on the ground to determine areas to support."). *See also* Letter from Sens. Blunt, Wicker, Moran, Ayotte (R-NH), and Fischer, U.S. Senate, to The Hon. Tom Wheeler, Chairman, Federal Communications Commission (Oct. 24, 2014) ("Ubiquitous, advanced mobile services remain a challenge, and considerable gaps persist in many rural areas.").

[13] Draft Order ¶ 38.

all other parameters.[14] CCA discussed in-depth the problems with the challenge process. CCA encouraged the Commission to ensure that the challenge process strikes a reasonable balance to avoid overly burdening small carriers,[15] and works to refine the eligible areas map to determine distribution of $4.53 billion in federal support over the next ten years.

As noted above, the FCC intends to require challengers to conduct speed tests using devices specifically chosen by challenged entities.[16] CCA explained that if the chosen devices are specific to one vendor, drive test capabilities will be extremely limited and will discourage most rural carriers from participating in the challenge process. Specifically, as the FCC notes, one of the easiest ways for some carriers to test the data will be to use drive test equipment that they currently own. However, certain devices, like those manufactured by Apple, may not interface with the carrier's drive test equipment, which will be extremely costly and burdensome to overcome. Additionally, competitive carriers often are unable to easily access off the shelf devices from other service providers that work with their drive test equipment. As a result, the FCC should allow challengers to pick the devices used. In the alternative, if the FCC is the sole authority to authorize certain devices, it should ensure that they vary by manufacturer to avoid unnecessarily burdening or excluding challengers. The FCC should explicitly require challenged carriers to provide access to at least two engineering capable devices or devices able to be put into diagnostic mode enabling data collection by autonomous drive test software. In addition, the FCC should stipulate that at least one engineering capable device unlocked for diagnostic mode must use an Android operating system. This will dramatically improve the challenge process and reduce the burden on smaller carriers, making them much more likely to participate and resulting in a more accurate map because of their participation.

What's more, challengers also will incur labor and travel costs that could vary widely depending on their network footprint and the eligible areas map.[17] CCA therefore agrees with the FCC that challengers should have the ability to submit speed data from hardware- or software-based drive tests or application-based tests that cover the challenged area. As CCA has noted, challengers should be allowed to provide drive test results, tests conducted by third-party applications, or results from network engineering analyses.[18] Together, CCA supports the use of both drive testing and app-based testing to record actual on-the-ground data, including those from established companies such as Ookla, Nielsen, and Mosaik.[19] Nevertheless, most CCA members prefer the use of field test or drive testing to measure coverage, as it produces the most reliable and accurate coverage analysis and the FCC should give greater weight to drive tests results.

Further, CCA cautioned against use of transmitter monitoring statistics by respondents, as the information can be easily manipulated based on time of day and period of collection and can

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[14] *Id.* ¶ 48.

[15] CCA MF II Comments at 1, 12.

[16] Draft Order ¶ 48.

[17] CCA MF II Comments at 3-4. For example, an app-based test may require stopping to test at small intervals (1/2-mile distances) and could cost more than a drive test.

[18] CCA MF II Reply Comments at 6-7.

[19] CCA MF II Comments at 16.

produce unreliable geo-location results. As noted, the FCC intends to require challengers to "submit detailed proof of lack of unsubsidized, qualified 4G LTE coverage in support of [their] challenge," including by submitting actual outdoor speed test data using the latest devices.[20] At the same time, however, a respondent need only conduct speed tests of its own network (or gather network monitoring reports) in the disputed areas, and the draft item proposes to allow use of information collected from transmitter monitoring software to respond to a challenge.[21] This is a stark discrepancy that refutes the preponderance of the evidence standard for challenged parties' responses.[22] What's more, transmitter statistics can make coverage look stronger in an area than that revealed by drive testing, and refute the efforts and resources expended by challengers, particularly in rural and remote areas. At a minimum, the FCC should clarify that "transmitter monitoring software" and "certain technical information" must be collected "on the ground" in accordance with challenging parties' burden of proof.

Finally, CCA continues to believe that requiring inclusion or, at the very least, disclosure of a carrier's link budget when collecting its coverage data is the best, most efficient and accurate way to measure coverage. Short of that, the FCC will have to rely on the challenge process to improve a map that is not sufficiently standardized to make accurate comparisons. Therefore, CA supports implementation of a reasonable timeframe by which parties should submit their on-the-ground data once the challenge portal has been opened. Per the draft item, challenged parties will have 30 days to submit additional data in response to a challenge, and the FCC will make a final determination, with the challenger bearing the burden to prove that the area lacks sufficient service.[23] CCA supports the Commission's goal to expeditiously allot support to areas that need it most. However, as noted above, the number of observations that a carrier will be required to submit will vary depending on the size of the area, the nature of the topography, the number and quality of obstacles, the season, and other factors that may cause variations in network performance. Additionally, it often can take competitive carriers at least 30 days to obtain and configure a device for testing. As a result, if the FCC intends to rely on the challenge process to standardize the eligible areas map, CCA continues to encourage the Commission to provide stakeholders at least a 120-day challenge period to submit data.[24]

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[20] Draft Order ¶¶ 29, 46.

[21] *Id.* ¶ 59.

[22] *See id.* ¶ 62. The FCC's draft item explains that once preliminary eligible areas are established, the FCC will launch a challenge portal, and challengers will have 60 days to submit data that proves by a preponderance of the evidence that areas deemed ineligible should be eligible for support. CCA supports the Commission's use of a "preponderance of the evidence" standard to the challenge process, which strikes a reasonable balance between a strong burden of proof and protecting against superfluous challenges.

[23] Draft Order ¶¶ 57-59.

[24] CCA MF II Comments at 3, 6; CCA MF II Reply Comments at 6.

This *ex parte* notification is being filed electronically with your office pursuant to Section 1.1206 of the Commission's Rules. Please do not hesitate to contact me with any questions or concerns.

Respectfully submitted,

/s/ Rebecca Murphy Thompson

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